



221749.ST25  
SEQUENCE LISTING

<110> GOVERNMENT OF THE UNITED STATES OF AMERICA, REPRESENTED BY  
THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES  
KAYE, FREDERIC J.  
KOMIYA, TAKEFUMI

<120> COMPOSITIONS AND METHODS FOR INHIBITING TRANSLATION OF A CHIMERIC  
GENE

<130> 221749

<140> 10/698,070

<141> 2003-10-30

<160> 12

<170> PatentIn version 3.3

<210> 1

<211> 3763

<212> DNA

<213> Homo sapiens

<400> 1

```
agggtggcggc gagaagatgg cgacttcgaa caatccgcgg aaattcagcg agaagatcgc      60
gctgcacaat cagaagcagg cggaggagac ggcggccttc gaggagggtca tgaaggacct      120
gagcctgacg cgggccgcgc ggctccaggg ttccttgaaa agaaaacagg tagttaacct      180
atctcctgcc aacagcaagc gacccaatgg ctttgtggac aactcatttc ttgatataca      240
aagaattcgt gttggggaga atctctctgc aggacaaggt ggccctccaa taaacaatgg      300
acaaagtcag attatgtcag ggaccttgcc tatgagccaa gcaccctgc gaaagactaa      360
cactctgcca tcccatacac attctcctgg caatggcctg tttaacatgg gcttaaagga      420
ggtaaagaag gagccaggag agactctgtc ttgcagtaag cacatggatg gccaaatgac      480
ccaagagaat atttttccta ataggtacgg agacgaccct ggagaacaac tgatggatcc      540
tgagctgcag gaactgttca atgaactgac caacatatct gtgcctccca tgagtgcact      600
tgaactggag aacatgatca atgccaccat aaagcaggat gaccattta acattgactt      660
gggtcagcaa agccagagga gcacacctag gccctcctta cccatggaga aaatagtgat      720
caaaagtgaa tactcaccgg gcttgactca gggccctca ggctctcctc agctgaggcc      780
cccatcagct ggccccgcgt tctccatggc caactctgcc ctctccactt cgtctccaat      840
cccttcagtc cctcagagcc aggtcagcc tcagacaggc tccggagcaa gccgggcctt      900
gccaaagtgg caggaagtat cccatgcca gcagctcaaa cagatagctg ctaatcgtca      960
gcagcatgcc cggatgcagc agcaccagca gcagcaccag cctaccaact ggtcagcctt     1020
gccctcctct gctggacat caccaggtcc atttgggcag gagaaaatcc ccagcccttc     1080
ttttggtcag cagacattca gccacagag ctcccccatg cctggggtag ctggcggcag     1140
```

## 221749.ST25

cggccagtcg	aaagtaatgg	ctaactacat	gtacaaggcc	ggcccctcag	cccaggggtgg	1200
gcacctagat	gtcctcatgc	agcaaaagcc	tcaggatctc	agtcgaagtt	ttattaacaa	1260
cccgcaccca	gccatggagc	cccgtcaggg	caacaccaag	cctttgtttc	attttaactc	1320
agatcaagcg	aaccagcaga	tgccttctgt	tttgcccttc	cagaacaagc	cttctctcct	1380
acactacacc	caacagcaac	agcagcaaca	gcagcagcag	cagcagcagc	agcagcagca	1440
acagcagcag	cagcagcaac	agcaacagca	acagcaacag	cagagttcaa	tttcagctca	1500
acaacagcaa	cagcagcaga	gctcaatttc	agcccaacag	cagcagcagc	agcaacaaca	1560
gcagcagcag	cagcaacaac	aacagcaaca	acagcagcag	cagcagcagc	aacaaccatc	1620
ttctcagcct	gccaatctc	taccaagcca	gcctttgcta	aggtcacctt	tgccacttca	1680
gcaaaagctc	ctacttcagc	aatgacagaa	tcagcccatt	gcaggaatgg	gataccaagt	1740
ctcccaacaa	cagagacagg	atcaacactc	tgtggtaggc	cagaacacag	gccccagtcc	1800
aagtcctaac	ccctgctcaa	atccaaacac	tggaagtggc	tacatgaact	cccagcaatc	1860
actgttgaat	cagcaattga	tgggaaagaa	gcagactcta	cagaggcaga	tcattggagca	1920
gaaacagcaa	cttcttctcc	agcagcagat	gctggctgac	gcggagaaaa	ttgctccaca	1980
agatcagata	aaccgacatt	tgtcaaggcc	acctccagat	tataaagacc	aaagaagaaa	2040
tgtgggcaat	atgcaaccaa	ctgctcagta	ttctggtggc	tcattccaca	taagcttaaa	2100
ctctaaccag	gctttggcaa	accagtttc	aacacacacc	attttaactc	ccaattccag	2160
cctcctgtct	acttctcacg	ggacaagaat	gccatcatta	tctacagcag	ttcagaatat	2220
ggggatgtat	ggaaatctgc	cttgtaatca	acctaacaca	tacagtgtca	cttcaggaat	2280
gaatcaattg	acccaacaga	gaaacccaaa	gcaattgtta	gcaaatacaa	acaaccctat	2340
gatgccacgg	ccacctacct	tagggccaag	taataataac	aatgtagcca	cttttgagc	2400
tggatctgtt	ggtaattcac	aacaattgag	accaaattta	acccatagta	tggcaagcat	2460
gccaccacag	agaacatcaa	acgtaatgat	cacatccaac	acaactgcac	caaactgggc	2520
ctctcaagaa	ggaacaagca	aacagcaaga	agccctgacg	tctgcaggag	tccgcttccc	2580
cacaggtaca	cctgcagcct	ataccccaa	tcagtcactg	caacaggcag	taggtagcca	2640
gcaattttcc	cagagggcag	tggctcctcc	taaccagtta	acaccagcag	tgcaaatgag	2700
acccatgaac	caaatgagcc	aaacactaaa	tgggcaaacc	atgggtcccc	tcaggggtct	2760
gaatctcaga	ccaatcagc	taagcacaca	gattttgcct	aatttgaatc	agtcaggaac	2820
agggttgaat	cagtcgagga	cgggcatcaa	ccagccacca	tccctgacgc	ccagcaattt	2880
tccttcaccc	aaccaaagtt	ccagggcttt	tcaagggaact	gaccacagca	gtgacttagc	2940
ttttgacttc	ctcagccaac	aaaatgataa	catgggccct	gccctaaaca	gtgatgctga	3000
tttcattgat	tctttattga	agacagagcc	tggtaatgat	gactggatga	aagacatcaa	3060

221749.ST25

tcttgatgaa atcttgggga acaattccta aagaagaaag ggaagacaat ttacaaactc	3120
caagcactaa aaggcagtat attacagaaa ctctgtagag gctgaactgt tgatgttcag	3180
gtggactaca tgaagataac atgcttaaaa atggaaagca gaaagtaact gcagtgatga	3240
acattttgggt ccaaattctt gttttaaatc ttacacctga aagtaaaata ttgggatcac	3300
ttttccctgt ctaaaactcca ggatacagta tccaatttat ccaaacagaa ctgtggtgtc	3360
aatgtgtaat taattgtgta aaatagcctt cccaagtttc tttttccctg gaaaataaaa	3420
aaggtaatag aactttagt ttatttaaac cccatgtcat gaggaggtac tagttccaag	3480
caacaaactc cttaatttgc tctaatagat aggtatggtt taatctttcc attgtgtctt	3540
ttcatttaat tttcctgaag cttgcaggat agattgaaat gttatagggt tgtttggagt	3600
aaccaaacag tatgcaaatt aagaaaaagc cagagaacct agaaaacatc cagtggatta	3660
cagaatttct tccccatatt cactcctcac ttttacaatt ttcccacaat cctctacttc	3720
agtgggatgc tgtgtctagt gattaaaca aaatatagag ctg	3763

<210> 2  
 <211> 73  
 <212> DNA  
 <213> Unknown

<220>  
 <223> RNAi clone

<400> 2	
ttggcaggag atagggttaac tacctgttga agcttgagca ggtggttaat ctatctcctg	60
ctaacagttt ttt	73

<210> 3  
 <211> 71  
 <212> DNA  
 <213> Unknown

<220>  
 <223> RNAi clone

<400> 3	
atgtgcagcg cgatcttctc gctgaatgaa gcttgattcg gcgagaaggt cgcgttgcac	60
gatcagtttt t	71

<210> 4  
 <211> 78  
 <212> DNA  
 <213> Unknown

<220>  
 <223> RNAi clone - antisense

<400> 4

221749.ST25

gatcaaaaaa ctgatcgtgc aacgcgacct tctgccgaat caagcttcat tcagcgagaa	60
gatcgcgctg cacaatcg	78
<210> 5	
<211> 28	
<212> DNA	
<213> Unknown	
<220>	
<223> fragment of Mect1-MAML2 sequence	
<400> 5	
ttggcaggag ataggttaac tacctgtt	28
<210> 6	
<211> 28	
<212> DNA	
<213> Unknown	
<220>	
<223> fragment of Mect1-MAML2 sequence	
<400> 6	
attgtgcagc gcgatcttct cgctgaat	28
<210> 7	
<211> 28	
<212> DNA	
<213> Unknown	
<220>	
<223> fragment of Mect1-MAML2 sequence	
<400> 7	
attcagcgag aagatcgcgc tgcacaac	28
<210> 8	
<211> 19	
<212> RNA	
<213> Unknown	
<220>	
<223> siRNA #1	
<400> 8	
ccuauccuccu gccaacagc	19
<210> 9	
<211> 19	
<212> RNA	
<213> Unknown	
<220>	
<223> complement to siRNA #1	
<400> 9	
gcuguuggca ggagauagg	19

221749.ST25

<210> 10  
 <211> 19  
 <212> RNA  
 <213> Unknown

<220>  
 <223> siRNA #2

<400> 10  
 cagguaguua accuauuc

19

<210> 11  
 <211> 19  
 <212> RNA  
 <213> Unknown

<220>  
 <223> complement to siRNA #2

<400> 11  
 gagauagguu aacuaccug

19

<210> 12  
 <211> 1024  
 <212> PRT  
 <213> Homo sapiens

<400> 12

Met Ala Thr Ser Asn Asn Pro Arg Lys Phe Ser Glu Lys Ile Ala Leu  
 1 5 10 15

His Asn Gln Lys Gln Ala Glu Glu Thr Ala Ala Phe Glu Glu Val Met  
 20 25 30

Lys Asp Leu Ser Leu Thr Arg Ala Ala Arg Leu Gln Gly Ser Leu Lys  
 35 40 45

Arg Lys Gln Val Val Asn Leu Ser Pro Ala Asn Ser Lys Arg Pro Asn  
 50 55 60

Gly Phe Val Asp Asn Ser Phe Leu Asp Ile Lys Arg Ile Arg Val Gly  
 65 70 75 80

Glu Asn Leu Ser Ala Gly Gln Gly Gly Leu Gln Ile Asn Asn Gly Gln  
 85 90 95

Ser Gln Ile Met Ser Gly Thr Leu Pro Met Ser Gln Ala Pro Leu Arg  
 100 105 110

Lys Thr Asn Thr Leu Pro Ser His Thr His Ser Pro Gly Asn Gly Leu  
 115 120 125

221749.ST25

Phe Asn Met Gly Leu Lys Glu Val Lys Lys Glu Pro Gly Glu Thr Leu  
 130 135 140  
 Ser Cys Ser Lys His Met Asp Gly Gln Met Thr Gln Glu Asn Ile Phe  
 145 150 155 160  
 Pro Asn Arg Tyr Gly Asp Asp Pro Gly Glu Gln Leu Met Asp Pro Glu  
 165 170 175  
 Leu Gln Glu Leu Phe Asn Glu Leu Thr Asn Ile Ser Val Pro Pro Met  
 180 185 190  
 Ser Asp Leu Glu Leu Glu Asn Met Ile Asn Ala Thr Ile Lys Gln Asp  
 195 200 205  
 Asp Pro Phe Asn Ile Asp Leu Gly Gln Gln Ser Gln Arg Ser Thr Pro  
 210 215 220  
 Arg Pro Ser Leu Pro Met Glu Lys Ile Val Ile Lys Ser Glu Tyr Ser  
 225 230 235 240  
 Pro Gly Leu Thr Gln Gly Pro Ser Gly Ser Pro Gln Leu Arg Pro Pro  
 245 250 255  
 Ser Ala Gly Pro Ala Phe Ser Met Ala Asn Ser Ala Leu Ser Thr Ser  
 260 265 270  
 Ser Pro Ile Pro Ser Val Pro Gln Ser Gln Ala Gln Pro Gln Thr Gly  
 275 280 285  
 Ser Gly Ala Ser Arg Ala Leu Pro Ser Trp Gln Glu Val Ser His Ala  
 290 295 300  
 Gln Gln Leu Lys Gln Ile Ala Ala Asn Arg Gln Gln His Ala Arg Met  
 305 310 315 320  
 Gln Gln His Gln Gln Gln His Gln Pro Thr Asn Trp Ser Ala Leu Pro  
 325 330 335  
 Ser Ser Ala Gly Pro Ser Pro Gly Pro Phe Gly Gln Glu Lys Ile Pro  
 340 345 350  
 Ser Pro Ser Phe Gly Gln Gln Thr Phe Ser Pro Gln Ser Ser Pro Met  
 355 360 365  
 Pro Gly Val Ala Gly Gly Ser Gly Gln Ser Lys Val Met Ala Asn Tyr  
 Page 6

370

375

Met Tyr Lys Ala Gly Pro Ser Ala Gln Gly Gly His Leu Asp Val Leu  
385 390 395 400

Met Gln Gln Lys Pro Gln Asp Leu Ser Arg Ser Phe Ile Asn Asn Pro  
405 410 415

His Pro Ala Met Glu Pro Arg Gln Gly Asn Thr Lys Pro Leu Phe His  
420 425 430

Phe Asn Ser Asp Gln Ala Asn Gln Gln Met Pro Ser Val Leu Pro Ser  
435 440 445

Gln Asn Lys Pro Ser Leu Leu His Tyr Thr Gln Gln Gln Gln Gln Gln  
450 455 460

Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln  
465 470 475 480

Gln Gln Gln Gln Gln Gln Gln Gln Gln Ser Ser Ile Ser Ala Gln Gln  
485 490 495

Gln Gln Gln Gln Gln Ser Ser Ile Ser Ala Gln Gln Gln Gln Gln Gln  
500 505 510

Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln  
515 520 525

Gln Gln Gln Gln Gln Pro Ser Ser Gln Pro Ala Gln Ser Leu Pro Ser  
530 535 540

Gln Pro Leu Leu Arg Ser Pro Leu Pro Leu Gln Gln Lys Leu Leu Leu  
545 550 555 560

Gln Gln Met Gln Asn Gln Pro Ile Ala Gly Met Gly Tyr Gln Val Ser  
565 570 575

Gln Gln Gln Arg Gln Asp Gln His Ser Val Val Gly Gln Asn Thr Gly  
580 585 590

Pro Ser Pro Ser Pro Asn Pro Cys Ser Asn Pro Asn Thr Gly Ser Gly  
595 600 605

Tyr Met Asn Ser Gln Gln Ser Leu Leu Asn Gln Gln Leu Met Gly Lys  
610 615 620

## 221749.ST25

Lys Gln Thr Leu Gln Arg Gln Ile Met Glu Gln Lys Gln Gln Leu Leu  
 625 630 635 640  
 Leu Gln Gln Gln Met Leu Ala Asp Ala Glu Lys Ile Ala Pro Gln Asp  
 645 650 655  
 Gln Ile Asn Arg His Leu Ser Arg Pro Pro Pro Asp Tyr Lys Asp Gln  
 660 665 670  
 Arg Arg Asn Val Gly Asn Met Gln Pro Thr Ala Gln Tyr Ser Gly Gly  
 675 680 685  
 Ser Ser Thr Ile Ser Leu Asn Ser Asn Gln Ala Leu Ala Asn Pro Val  
 690 695 700  
 Ser Thr His Thr Ile Leu Thr Pro Asn Ser Ser Leu Leu Ser Thr Ser  
 705 710 715 720  
 His Gly Thr Arg Met Pro Ser Leu Ser Thr Ala Val Gln Asn Met Gly  
 725 730 735  
 Met Tyr Gly Asn Leu Pro Cys Asn Gln Pro Asn Thr Tyr Ser Val Thr  
 740 745 750  
 Ser Gly Met Asn Gln Leu Thr Gln Gln Arg Asn Pro Lys Gln Leu Leu  
 755 760 765  
 Ala Asn Gln Asn Asn Pro Met Met Pro Arg Pro Pro Thr Leu Gly Pro  
 770 775 780  
 Ser Asn Asn Asn Asn Val Ala Thr Phe Gly Ala Gly Ser Val Gly Asn  
 785 790 795 800  
 Ser Gln Gln Leu Arg Pro Asn Leu Thr His Ser Met Ala Ser Met Pro  
 805 810 815  
 Pro Gln Arg Thr Ser Asn Val Met Ile Thr Ser Asn Thr Thr Ala Pro  
 820 825 830  
 Asn Trp Ala Ser Gln Glu Gly Thr Ser Lys Gln Gln Glu Ala Leu Thr  
 835 840 845  
 Ser Ala Gly Val Arg Phe Pro Thr Gly Thr Pro Ala Ala Tyr Thr Pro  
 850 855 860  
 Asn Gln Ser Leu Gln Gln Ala Val Gly Ser Gln Gln Phe Ser Gln Arg  
 865 870 875 880



221749.ST25

Ala Val Ala Pro Pro Asn Gln Leu Thr Pro Ala Val Gln Met Arg Pro  
885 890 895

Met Asn Gln Met Ser Gln Thr Leu Asn Gly Gln Thr Met Gly Pro Leu  
900 905 910

Arg Gly Leu Asn Leu Arg Pro Asn Gln Leu Ser Thr Gln Ile Leu Pro  
915 920 925

Asn Leu Asn Gln Ser Gly Thr Gly Leu Asn Gln Ser Arg Thr Gly Ile  
930 935 940

Asn Gln Pro Pro Ser Leu Thr Pro Ser Asn Phe Pro Ser Pro Asn Gln  
945 950 955 960

Ser Ser Arg Ala Phe Gln Gly Thr Asp His Ser Ser Asp Leu Ala Phe  
965 970 975

Asp Phe Leu Ser Gln Gln Asn Asp Asn Met Gly Pro Ala Leu Asn Ser  
980 985 990

Asp Ala Asp Phe Ile Asp Ser Leu Leu Lys Thr Glu Pro Gly Asn Asp  
995 1000 1005

Asp Trp Met Lys Asp Ile Asn Leu Asp Glu Ile Leu Gly Asn Asn  
1010 1015 1020

Ser